

Applicants: INOUE et al.
Serial No.: 09/473,988

Docket No.: 991493
Group Art Unit: 2814

pubca
BS
8. (Twice Amended) A semiconductor device comprising a semiconductor element formed on a semiconductor substrate, and a multilayer interconnection structure formed over said semiconductor element and electrically connected to said semiconductor element,

wherein said multilayered interconnection structure is an interconnection structure of at least two layers in which a conductive film or a lower interconnection layer and an upper interconnection layer formed on an insulating interlayer are electrically connected through a contact hole formed in said insulating interlayer,

said insulating interlayer includes a first insulating layer of a composition containing SiH₄, and a second insulating layer formed on said first insulating layer, and

said first insulating layer has an H content of not less than 15.4 atom% in the composition, and has been formed to cover said conductive film or the lower interconnection layer with a third insulating layer being interposed therebetween.